

LISTING OF CLAIMS

1. (Currently amended) An isolated mammalian c-kit-/c-met- cardiomyocyte precursor cell of skeletal muscle muscular origin, wherein the cardiomyocyte precursor cell is between about 3 μ m and 10 μ m in diameter.
2. (Original) The cell of claim 1, wherein the cell is a human cell.
3. (Original) The cell of claim 1, wherein the cell is a mouse cell.
4. (Original) The cell of claim 1, wherein the cell is from a fetus, a child, or an adult.
5. (Original) The cell of claim 1, wherein the cell is in suspension.
6. (Canceled)
7. (Original) The cell of claim 6₁, wherein the cell is approximately 4 μ m in diameter.
8. (Original) The cell of claim 1, wherein the cell differentiates into a cardiomyocyte.
9. (Original) The cell of claim 1, wherein the cell differentiates into a spontaneously beating cardiomyocyte.
10. (Original) The cell of claim 1, wherein the cell is transduced with a viral vector.
11. (Currently amended) The cell of claim 4-10 wherein the viral vector comprises a heterologous nucleic acid.

12. (Original) The cardiomyocyte of claim 8, wherein the cardiomyocyte expresses GATA-4, troponin-T, L-type calcium channel, or Nkx2.5, or a combination thereof.

13-24. (Canceled)

25. (Currently amended) A mammalian c-kit-/c-met- cardiomyocyte precursor cell of muscular skeletal muscle origin isolated ~~according to~~ ~~by~~ ~~the~~ method of claim 13 comprising:

separating skeletal muscle cells of less than 40 μ m in diameter from a suspension of cells;

culturing the skeletal muscle cells in a tissue culture medium on a solid substrate; and

isolating the c-kit-/c-met- cardiomyocyte precursor cells, wherein the c-kit-/c-met- cardiomyocyte precursor cells are between about 3 μ m and 10 μ m in diameter and are in suspension in the tissue culture medium.

26-42. (Canceled)

43. (Currently amended) A pharmaceutical composition comprising mammalian c-kit-/c-met- cardiomyocyte precursor cells of skeletal muscle muscular origin in a pharmaceutically acceptable carrier, wherein the cardiomyocyte precursor cells are between about 3 μ m and 10 μ m in diameter.

44-48. (Canceled)

49. (Currently amended) A kit for ~~promoting~~ ~~cardiomyocyte~~ differentiation, comprising a container containing a purified population of mammalian c-kit-/c-met- cardiomyocyte precursor cells of skeletal muscle origin, wherein the cardiomyocyte precursor cells are between about 3 μ m and 10 μ m in diameter ~~of muscular origin, and instructions for growth or differentiation of the cardiomyocyte precursor cells.~~

50. (Currently amended) The kit of claim 49, further comprising a container comprising a differentiation medium containing a growth factor, a container containing a culture medium, instructions for using the kit, or any combination thereof.